

Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application.

1. (Currently Amended) A method for determining a priority classification of a burst at a physical interface of a communications device, comprising the steps of:

detecting an identifier from the burst at the physical interface, wherein said detecting occurs prior to data link layer protocol processing; and

matching said identifier to a priority indicator to determine the priority classification.

2. (Original) The method of claim 1, wherein said matching step further comprises the step of:

querying a memory to determine said priority indicator.

3. (Original) The method of claim 1, further comprising the step of:

storing the burst prior to said detecting step.

4. (Original) The method of claim 1, wherein said detecting step further comprises the step of parsing a header associated with the burst to detect said identifier.

5. (Original) The method of claim 1, wherein said identifier is associated with a service.

6. (Original) The method of claim 1, wherein said identifier is associated with a quality of service.

7. (Original) The method of claim 1, wherein said identifier is associated with a burst source.

8. (Original) The method of claim 1, wherein said identifier is associated with at least two of a service, a quality of service, and a burst source.

9. (Original) The method of claim 1, wherein said priority indicator represents one of two levels of priority.

10. (Original) The method of claim 1, wherein said priority indicator represents one of three or more levels of priority.

11. (Original) The method of claim 1, further comprising the step of:
forwarding the burst to a priority queue associated with said priority indicator.

12. (Original) The method of claim 11, further comprising the step of:
postpending said priority indicator to the burst prior to said forwarding step.

13. (Original) The method of claim 1, wherein the burst is an electromagnetic signal.

14. (Original) The method of claim 1, wherein the burst is an optical signal.

15. (Original) The method of claim 1, wherein the burst is an electronic signal.

16. (Original) The method of claim 1, wherein the burst includes voice over an Internet protocol signal.

17. (Original) The method of claim 1, wherein the burst includes video conferencing signals.

18. (Original) The method of claim 1, wherein the burst includes a webcast video production.

19. (Currently Amended) A method for determining a priority classification of a burst at a physical interface of a communications device, comprising the steps of:

detecting an identifier from the burst at the physical interface; and

matching said identifier to a priority indicator, said matching being implemented at the physical interface prior to data link layer protocol processing the burst.

20. (Currently Amended) A method for determining a priority classification of a plurality of bursts at a physical interface to a headend controller within a cable modem network, comprising the steps of:

processing the plurality of bursts at the physical interface to detect an identifier from each burst, wherein said processing the plurality of bursts at the physical interface occurs prior to data link layer protocol processing; and

matching said identifier from each burst to a priority indicator, wherein said priority indicator represents one of two or more available priority levels.

21. (Original) The method of claim 20, further comprising the step of:

providing a plurality of priority queues, each priority queue being associated with at least one priority indicator.

22. (Original) The method of claim 21, further comprising the step of:

forwarding each burst to one of said plurality of priority queues associated with said priority indicator from said matching step.

23. (Original) The method of claim 21, further comprising the step of:

servicing said plurality of priority queues according to a designated order of priority.

24. (Original) The method of claim 21, further comprising the step of:

servicing said plurality of priority queues to empty each higher priority queue prior to servicing a lower priority queue.

25. (Original) The method of claim 21, further comprising the step of:

servicing said plurality of queues such that each higher priority queue is serviced at a higher frequency than each lower priority queue.

26. (Currently Amended) A system for determining a priority classification of a burst at a physical interface of a communications device, comprising:

a burst receiver for receiving the burst at the physical interface; and

a classifier for detecting an identifier from the burst, wherein said identifier is matched to a priority indicator and wherein said detecting occurs at the physical interface prior to data link layer protocol processing.

27. (Original) The system of claim 26, further comprising:

a priority storage for storing information related to said identifier, wherein said priority storage is interoperable with said classifier to match said identifier to a priority indicator.

28. (Previously Presented) The system of claim 27, wherein said priority storage includes a lookup table.

29. (Previously Presented) The system of claim 27, wherein said priority storage includes records of all assigned identifiers and corresponding services or burst sources.

30. (Original) The system of claim 26, further comprising:

a high priority queue associated with a high priority indicator, wherein said high priority queue receives the burst if said identifier matches said high priority indicator; and

a low priority queue associated with a low priority indicator, wherein said low priority queue receives the burst if said identifier matches said low priority indicator.

31. (Original) The system of claim 26, further comprising:

a plurality of priority queues, wherein each priority queue is associated with at least one priority indicator and interoperable with said classifier to receive the burst if said identifier matches a priority indicator associated with said priority queue.

32. (Original) The system of claim 31, wherein said plurality of priority queues is positioned external to the communications device.

33. (Original) The system of claim 31, wherein each of said plurality of priority queues is an internal component of the communications device.

34. (New) The method of claim 19, further comprising:

postpending said priority indicator to the burst after matching said identifier to said priority indicator.

35. (New) The method of claim 20, further comprising:

postpending said priority indicator to the each burst after matching said identifier from each burst to said priority indicator.

36. (New) The system of claim 27, wherein the priority storage is interoperable with said classifier to postpend said priority indicator to the burst after matching said identifier to said priority indicator.

37. (New) The system of claim 28, wherein the lookup table is updated periodically by a software application.

38. (New) The system of claim 28, wherein the lookup table is updated on demand by a software application.